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Can I Touch the Clothes on the Screen? The Touch Effect in Online Fashion Shopping

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Significance. The use of touch devices (e.g., tablets using with fingers) have become prevalent in the daily lives of consumers, including when shopping online for fashion items. Amid growing research interest on how touch devices affect consumer behavior, we extend the literature by showing the interplay effects of different device types (touch vs. non-touch) and the differences in the tactile qualities of garments (strong vs. weak) on the product attitudes of consumers. We also demonstrate that these effects are mediated by the mental simulation for touch.

Application of literature. Unlike non-touch, click-based devices (e.g., desktop computers with a mouse), touch devices allow online shoppers to directly touch product images on the screen with their fingers. The hand motions of consumers when touching product images on the screen facilitate a mental simulation of actually touching the product (Liu et al., 2019), and the facilitated mental simulation of product interactions subsequently generates favorable consumer responses, such as increased purchase intentions (Shen et al., 2016). Likewise, we expect that using a touch device leads to positive product attitudes through the mental simulation for touch.

We also argue that the mental simulation for touch is influenced by product characteristics, specifically the tactile sensitivity of garments. Tactile characteristics are particularly important for garments (Workman, 2010) as their primary material properties are fabric and textiles, which show a wide range of textural differences. Tactile sensitivity varies across garment materials, and the effects of touch are strong when garments are made with materials that have highly tactile-sensitive qualities. For example, jackets made of fur or leather have higher tactile-sensitive qualities compared with those made with regular woven fabric. Accordingly, consumers would experience different levels of mental simulation for touch depending on the differences in the tactile-sensitive qualities of garments. Specifically, they would feel strong mental simulation for clear tactile characteristics, and vice versa.

Furthermore, we hypothesize that the types of devices would influence the degree of consumers' mental simulation response to tactile-sensitive garments. Particularly, we postulate that the positive effect of touch devices on mental simulation for touch would be significant for garments with less tactile characteristics. If a garment has visible tactile qualities, then consumers can easily imagine the texture of the garment, and touching a flat screen would not bring additional sensory experience to these consumers. However, a garment with limited visible tactile qualities, even an imagined or vicarious touch of the screen, can contribute to the facilitation of mental simulation for touch.

Methods. Based on the t-test results (n = 77), among 6 different jackets with various garment types, we selected a fur jacket for the high tactile sensitivity condition (M = 4.23) and a woven jacket for the low tactile sensitivity condition (M = 3.32) (t = 3.008, $p < .01$), while these jackets showed no differences in preference ($M_{fur} = 2.79$, $M_{woven} = 2.61$, t = .423, $p = .667$). A mock webpage presenting each jacket was created, and the product information and texture details were presented on this webpage.

The participants were recruited from Amazon Mechanical Turk and were randomly assigned to one of two conditions (tactile sensitivity: high [fur jacket] vs. low [woven jacket]). We asked the participants to identify the device that they used to respond to the online survey and only considered the responses of those participants who used a laptop (n = 96) as a non-touch device and a touch device (n = 83) in our analysis. The mental simulation for touch (Shen et al., 2016) and product attitudes (Diehl et al., 2015) were measured on a seven-point scale.

Results. To test the effect of device types and tactile sensitivity of garments on mental simulation for touch, we conducted a two-way ANOVA with device types (touch vs. non-touch device) and tactile sensitivity of garments (high vs. low). Results show the significant main effects of device types ($F(1,175) = 4.661$, $p < .05$) and tactile sensitivity of garments ($F(1,175) = 10.297$, $p < .01$) on mental simulations. Those participants using a touch device perceived a greater mental simulation for touch compared with those using a non-touch device. In addition, those participants browsing the jacket with a tactile-sensitive garment (i.e., fur) demonstrated a greater mental simulation for touch than those browsing the jacket with a less tactile-sensitive garment. (i.e., woven). The interaction effect of device types and tactile sensitivity was also significant ($F(1,175) = 6.689$, $p < .05$). Those participants seeing the less tactile-sensitive product also showed greater mental simulation for touch when using a touch device (vs. non-touch device). However, those participants seeing a tactile-sensitive product perceived similar mental simulations for touch regardless of the device types. Therefore, this indicates that using a touch device can strengthen the mental simulation for touch of a non-haptic centric product.

The Hayes' (2013) PROCESS procedure (Model 7 with 1,000 bootstrap samples) was used to test the interplay effects of device types and tactile sensitivity of garments on product attitudes as mediated by mental simulation for touch. Results show that for those participants browsing less tactile-sensitive garments, using a touch device increases their favorable product attitudes as fully mediated by mental simulation for touch (effect = .3077, 95% CI [0.1235, 0.5953]).

Discussion. The findings contribute to the literature on fashion consumer behaviors in an online setting by testing the touch effect, which can satisfy consumers' tactile need in online shopping, consequently influencing their product attitudes. Fashion online retailers can increase consumers' preference for their products by implementing touch-optimized interfaces in their online stores (for less tactile-sensitive products) or providing detailed garment information (for tactile-sensitive products) on their webpages.

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